

REMARKS

Applicants submit the present Amendment in response to the Office Action mailed February 6, 2007. For the reasons discussed below, Applicants respectfully submit that the pending claims are patentable over the cited references.

I. The Rejections Based on Takao in View of Takayama

Claims 1-3, 6, 10-13, 17-18, 22, 24-25, 30-31, 34 and 36 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application No. 2002/0173277 to Takao et al. ("Takao") in view of U.S. Patent Application No. 2002/0025810 to Takayama et al. ("Takayama"). Applicants respectfully traverse the rejections of these claims.

A. The Rejections of Claims 17-18, 22, 24, 25, 30-31, 34 and 36

Claims 17-18, 22, 24-25, 30-31, 34 and 36 are each dependent claims. Claims 17-18, 22 and 24-25 depend from independent Claim 14, Claims 30-31 depend from independent Claim 26 and Claims 34 and 36 depend from independent Claim 33. Notably, none of independent Claims 14, 26 or 33 stand rejected as being obvious over the combination of Takao and Takayama. As such, it appears that the rejections of dependent Claims 17-18, 22, 24-25, 30-31, 34 and 36 as being obvious over the combination of Takao and Takayama was issued in error. Accordingly, as the Office Action has not made a *prima facie* case for rejecting Claims 17-18, 22, 24-25, 30-31, 34 and 36 as unpatentable over Takao and Takayama, the rejections of these claims should be withdrawn. In addition, as discussed in more detail below, independent Claims 14, 26 and 33 are each patentable over the cited art. Thus, Claims 17-18, 22, 24-25, 30-31, 34 and 36 are also patentable as depending from a patentable base claim. Applicants also respectfully submit that at least Claims 13, 17, 24, and 36 are independently patentable over the cited art. In fact, the Office Action does not even attempt to identify where the recitations of these claims may allegedly be found in the cited references. (See Office Action at 4). Accordingly, the rejections of Claims 17-18, 22, 24-25, 30-31, 34 and 36 should be withdrawn for at least each of the above reasons.

B. The Rejection of Claim 1

Independent Claim 1 also stands rejected as being obvious over the combination of Takao and Takayama. Independent Claim 1 recites:

1. A wireless terminal configured to communicate over a wireless local area network, comprising:
 - a data processor;
 - at least one control unit that is responsive to the data processor and that controls communications with an access point over a first communications channel and over a second full-duplex communications channel;
 - a first interface between the at least one control unit and the first communications channel; and
 - a second interface between the at least one control unit and the second communications channel.

The Office Action states that Takao discloses each of the recitations of Claim 1 except for communication over a wireless local area network. (Office Action at 3). In particular, the Office Action states that the "mode switcher" of Takao comprises the "at least one control unit" that is recited in Claim 1. (Office Action at 3). However, Takao clearly teaches that the "mode switcher" disclosed therein comprises switching controllers 53 and 34 and the signal processing unit 50. (Takao at ¶ 0067, stating that the "switching controllers 53 and 34, and the signal processing unit 50 constitute a mode switcher."). As shown in Fig. 10 of Takao, both the switching controller 53 and the signal processing unit 50 **are part of the base station, and are not part of the mobile terminal**. As such, the "mode switcher" of Takao cannot comprise the "at least one control unit" of the "wireless terminal" of Claim 1 **as two of the three components that constitute the "mode switcher are not part of the mobile station of Takao, but instead are part of the base station of Takao**. In addition, what Claim 1 recites is that the at least one control unit is (1) "responsive to the data processor" and (2) "controls communications with an access point." However, the mode switcher of Takao clearly is not responsive to a data processor **that is part of a wireless terminal**, nor does the mode switcher of Takao control communications with an access point. Accordingly, for each of the above reasons it is clear that Takao does not disclose or suggest "at least one control unit that is responsive to the data processor and that controls communications with an

access point" as is recited in Claim 1, and hence the rejection of Claim 1 should be withdrawn for at least this reason.

Applicants also respectfully traverse the rejection of Claim 1 as Applicants submit that Takao does not disclose or suggest the "first interface" or the "second interface" recitations of Claim 1. In particular, the Office Action states that the "communication modes" of Takao comprise such first and second interfaces. However, what Claim 1 recites are physical interfaces (i.e., hardware, software, firmware) that are between the control unit and the respective first and second communications channels. In contrast, the "communication modes" of Takao refer to three channel allocation schemes as opposed to physical interfaces. Accordingly, the rejection of Claim 1 should be withdrawn for these additional reasons.

C. The Rejections of Claim 2-3, 6 and 10-13

Claims 2-3, 6 and 10-13 depend from independent Claim 1, and hence are patentable over Takao and Takayama for each of the reasons, discussed above, that Claim 1 is patentable of the combination of Takao and Takayama. Moreover, Applicants respectfully submit that at least Claim 3 is independently patentable over the combination of Takao and Takayama. In particular, Claim 3 recites that the wireless terminal further includes "a traffic control unit that is responsive to the data processor." The Office Action states that the "mode switcher" of Takao comprises such a traffic control unit (in addition to allegedly comprising the "at least one control unit" of Claim 1). However, as noted above, most of the "mode switcher" of Takao is not even part of the mobile station, nor is the mode switcher of Takao responsive to a data processor of the wireless terminal. Accordingly, the traffic control unit of Claim 3 is clearly not taught or suggested by Takao, providing an independent basis for withdrawal of the rejection of Claim 3.

II. The Rejections Based on Takao in View of Tzamaloukas

Claims 5, 7, 9, 14-16, 26-28 and 32-33 stand rejected under 35 U.S.C. § 103(a) as being obvious over Takao in view of U.S. Patent Application No. 2002/0173277 to Tzamaloukas et al. ("Tzamaloukas"). Applicants also respectfully traverse the rejections of these claims.

A. The Rejections of Claims 5, 7 and 9

Claims 5, 7 and 9 each depend from independent Claim 1. While independent Claim 1 has been rejected as being obvious over the combination of Takao and Takayama, Claim 1 has not been rejected as obvious over the combination of Takao and Tzamaloukas. As such, it appears that the rejections of Claims 5, 7 and 9 as being obvious over the combination of Takao and Tzamaloukas was issued in error, as the Office Action has not made a *prima facie* case for rejecting Claims 5, 7 and 9 as being obvious over the combination of Takao and Tzamaloukas. As such, the rejections of Claims 5, 7 and 9 should be withdrawn.

In addition, as discussed above, independent Claim 1 is clearly patentable over the cited art, and thus Claims 5, 7 and 9 are also patentable as depending from a patentable base claim. Moreover, with respect to Claim 5, as discussed in detail above with respect to Claim 3, the mode switcher of Takao does not comprise the claimed traffic control unit. Moreover, the Office Action does not even attempt to identify where in the cited references it is taught that "the data associated with a multi-media application is transmitted over the first channel" as is recited in Claim 7 or that "data associated with a first application running on the wireless terminal is transmitted to the wireless terminal over the first communications channel, and wherein at least some of the control signals associated with the first application are transmitted from the wireless terminal to the access point over the second communications channel" as is recited in Claim 9. Accordingly, Claims 5, 7 and 9 are independently patentable over the cited art for these additional reasons.

B. The Rejections of Independent Claims 14, 26 and 33

Independent Claims 14, 26 and 33 also stand rejected as being obvious over the combination of Takao and Tzamaloukas. Independent Claim 14 recites:

14. A wireless communications system, comprising:

a wireless terminal that transmits and receives data associated with at least first and second applications that are running on the wireless terminal;

an access point that serves as an interface between the wireless terminal and at least one processing server that is located on at least one external network;

a first communications channel between the wireless terminal and the access point for transmitting data associated with the first application from the access point to the wireless terminal; and

a second communications channel between the wireless terminal and the access point for transmitting data associated with the second application between the wireless terminal and the access point.

In rejecting Claim 14 under Section 103, the Office Action states that Takao discloses all of the recitations of Claim 14 except for "first and second applications that are running on the wireless terminal", and further states that Tzamaloukas discloses this final recitation of Claim 14. Applicants respectfully disagree with the rejection of Claim 14 for the following reasons.

The last two clauses of Claim 14 recite that the first communications channel transmits data associated with a first application that is running on the wireless terminal and that the second communications channel transmits data associated with a second application that is running on the wireless terminal. The Office Action states that Takao at paragraphs 0005 and 0029 discloses these recitations of Claim 14. However, as is conceded later in the Office Action, the cited portions of Takao do not discuss first and second applications that are running on the wireless terminal, and neither Takao nor Tzamaloukas disclose or suggest using a first communications channel for transmitting data associated with a first application while using a second communications channel for transmitting data associated with a second application as is recited in Claim 14. Accordingly, Applicants respectfully submit that the combination of Takao and Tzamaloukas does not render Claim 14 obvious for at least this reason.

Claim 26 similarly recites "receiving at the wireless terminal over a first communications channel between the wireless terminal and an access point application data associated with a first of the plurality applications" and "establishing a transmission path between the wireless terminal and the access point over a second communications channel for application data associated with a second of the plurality of applications." As discussed above with respect to Claim 14, neither Takao nor Tzamaloukas disclose or suggest such a method of supporting a plurality of applications on a wireless terminal. Accordingly, the rejection of Claim 26 should be withdrawn for at least this reason.

Claim 33, as amended herein, recites:

33. A wireless communication system for transmitting and receiving data from a plurality of applications, comprising:

a wireless terminal for transmitting and receiving data associated with a first of the plurality of applications and for running the first application;

an access point interfaced with an external processing server, the access point transmitting data associated with a second application of the plurality of applications to the wireless terminal, and forwarding the data associated with the first application that is received from the wireless terminal to the external processing server; and

a plurality of wireless channels for transmitting and receiving the data associated with the first and second applications between the wireless terminal and the access point;

wherein the plurality of wireless channels operates in different frequency bands and have different throughputs; and

wherein the second application is remote from the wireless terminal.

The Office Action states that Takao discloses all of the recitations of Claim 33 except for "transmitting and receiving data from a plurality of applications", and further states that Tzamaloukas discloses this recitation of Claim 33. Applicants respectfully traverse the rejection of Claim 33 as well.

In particular, what Claim 33 recites is that a first of the applications is running on the wireless terminal and that the second application is remote from the wireless terminal. Neither Takao nor Tzamaloukas disclose or suggest the wireless communication system of Claim 33 where the first application is run on the wireless terminal and the second application is remote from the wireless terminal. In addition, Claim 33 has been further amended to recite that the plurality of wireless channels operate in different frequency bands and have different throughputs. Neither Takao nor Tzamaloukas disclose or suggest such a wireless terminal. Accordingly, the rejection of Claim 33 should be withdrawn for at least each of these reasons.

C. The Rejections of Claim 15-16, 27-28 and 32

Claims 15-16, 27-28 and 32 depend from either independent Claim 14 or independent Claim 26, and hence are patentable over Takao and Tzamaloukas for each of the reasons, discussed above, that Claim 14 or Claim 26 is patentable of the combination of Takao and Tzamaloukas. Moreover, Applicants respectfully submit that at least Claims 15 and 32 are independently patentable over the combination of Takao and Tzamaloukas. In particular, Claim 15 recites that "the second communications channel is further used to transmit control information associated with the first application from the wireless terminal to the access point." Neither of the cited references disclose or suggest using a second communications channel for both transmitting data associated with a second application and transmitting control information associated with a first application as is recited in Claim 15. Accordingly, Claim 15 is independently patentable over the cited art. Claim 32 recites that "the first application is a multi-media application." The Office Action does not attempt to show where the recitation of Claim 32 may be found in the cited references. Accordingly, the rejection of Claim 32 should also be withdrawn for this additional reason.

III. The Remaining Rejections

Claims 4 and 21 stand rejected under 35 U.S.C. § 103(a) as being obvious over Takao in view of Takayama and further in view of U.S. Patent No. 6,115,615 to Ota et al. ("Ota"). Claims 8, 23, 29 and 35 stand rejected under 35 U.S.C. § 103(a) as being obvious over Takao in view of Takayama and further in view of U.S. Patent Application No. 2002/0062472 to Medlock ("Medlock"). Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious over Takao in view of Takayama and further in view of U.S. Patent No. 6,480,480 to Du ("Du"). Applicants also respectfully traverse the rejections of these claims.

With respect to the rejections of Claims 19-21, 23, 29 and 35, Applicants note that each of these claims depend from independent Claims 14, 26 or 33. Notably, the rejections of independent Claims 14, 26 and 33 all rely on additional references that are not included in the rejections of dependent Claims 19-21, 23, 29 and 35. Accordingly, it appears that the rejections of dependent Claims 19-21, 23, 29 and 35 were issued in error, and Applicants respectfully request withdrawal of these rejections.

Applicants also note that each of Claims 4, 8, 19-21, 23, 29 and 35 are dependent claims. As discussed above, the claims from which each of these claims depends are patentable over the cited art. Thus, the rejections of Claims 4, 8, 19-21, 23, 29 and 35 should also each be withdrawn as these claims depend from a patentable base claim.

Finally, Applicants respectfully submit that at least Claims 8, 19-21, 23, 29 and 35 are independently patentable over the cited references, and are not fairly taught by the cited combination of references.

IV. Conclusion

Applicants submit that the claims are patentable for at least the reasons discussed above. Applicants respectfully request allowance of the claims and passing of the application to issue in due course. Applicants encourage the Examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,




D. Randal Ayers
Registration No. 40,493
Attorney for Applicant

Customer Number 20792

Myers Bigel Sibley & Sajovec, P.A.
P.O. Box 37428
Raleigh, NC 27627
919-854-1400
919-854-1401 (Fax)

CERTIFICATION OF ELECTRONIC TRANSMISSION UNDER 37 CFR § 1.8

I hereby certify that this correspondence is being transmitted electronically via EFS to the U.S. Patent and Trademark Office on May 7, 2007.


Michele P. McMahan
Michele P. McMahan